

IN THE SPECIFICATION:

Please replace the existing title with the following title:

--ANTIBODIES TO HUMAN ION CHANNELS--

Please replace the table beginning on page 84, line 25 and ending on page 102 AUG 04 2003
with the following table:

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Table 5

The following DNA sequence Ion31 <~~SEQ ID NO:~~ SEQ ID NO: 1> was identified in *H. sapiens*:

CCCTCCTCCCTGGCCCCGGGTGCCCTTTCTCCTCCTGAAGTGGGAGGAGCCATACTGATGAGGGGGGT
GCCACTGGCAGGGGAGCAAGTCATTCATCATGAGCAGGAAGACGTTGTAGCCCAGCAGAAGTGTATC
TTGAATGGGGCAGCATTCTCGCTCTCTGCTGGCAGGTAGAAGCTGAGGGCATCAATGGCAACCAGAAA
GCTACTGGGCACCAGCAGGTTTATGATGTAGAGGCTTGGCCTGCGCCTGATGGCCACCTGGAGAGAGA
CCGGAGAAGATGGCAAATAAATAGATGTCAGAGGGCTCAATTTGTATATCTGACCCCTAATCTTTGCC
AATGTGCTGTGAGGCTGCTGGGGACGATCTTTTTAAGTAACACTTTTGCATATAATTGTGCTCGCCTA
CATAGGGGCCTCTGATTTGTTGTCTAATTTTTATTCATTTTTAACCTACTAGGAACACAATGACTGTA
GAATTTTAGGTGCAAGTGGGCCCTTTAAGTCATTCTGAGCAGTAGGGGTGAGCTGATCCATTCTGAGC
AGCAGGGCTTATTACAGTCCAGCCATTCCT

The following amino acid sequence <SEQ ID NOS. 52> is a predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID NO:~~ SEQ ID NO: 1:

<SEQ ID NO: 52>

VAIRRRPSLYIINLLVPSSFLVAIDALSFYLPASENRPFKITLLLGYNVFLMMNDLL

The following DNA sequence Ion32 <~~SEQ ID NO:~~ SEQ ID NO: 2> was identified in *H. sapiens*:

AGAAGAAAACAGTGACTGGTCCCAAGTAAGTCTGAAACCCAACAGGAGGAAACAACATGAAATGTTAC
GGCTTGAGAATAATCATTGGCTCAATGTTCTGCCCTCCAGGCCCACTAAGGTGATAGTGCCACCTTCA
GGACACAATGTGGTAGCAGCCCTGCCCTGTGGCTTTGGGTGGCCTTGCCCTGAGGCAGCCATGTGCT
TGTGCCTTGCTCCTGCCTCCACAGTAGCTCTGTGCCTGGGTCATGCATCTGAGGCTCTCCTGGAAACC
ACCACTGGTGACTCTACTGGTCTGGACTCATGGGCCTAGTGGGGGCCCTCTGTAGTGGCCCTTCCCCA
ACAGTGATTCTCCGTCTCAGCCCCATGGCTCTCTGGGGCATCCTTTTAATTCTGGGGGAAGGCAGCC
ATGCCCCACATCTTTCTACTCAAGGGCCCGTGATGGGATGGGTAGCTGTGATGA

The following amino acid sequence <~~SEQ ID NO:~~ SEQ ID NO: 53> is a predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID NO:~~ SEQ ID NO: 2:

<SEQ ID NO: 53>

SAPWLSWGILLILGEGSHAPTSFYSR

The following DNA sequence Ion33 <~~SEQ ID NO:~~ SEQ ID NO: 3> was identified in *H. sapiens*:

TATACTATACATAAAACAATTAGAGAACAATAAGTGCTAAATTAAGTTTTCTGGCAATGGTTTCTGA
TTATATATTTGTTTGATTTTAAGGTATACATGCATGTAGTTTCAGAGTTAGAAGGCAAAGTAGTTCT

ATAAACCTTGTAACAAAAATAGCAATTCTTGAGGCCTGCATCATCTTAGGTTTCAGCTTTTCAGAGGCA
ACACTTTAAATTGTTTCAGCTGGTAATGTTCTAGGACTGTACCTCCATATCTCTATAACACAGATGTA
TGGTTTTTTTTTATTAGGCATTATCCATGGACTTTTCATTATGAAAGATGAAGATTTCTGCCCTAACC
CCACACCCCTACTCCCCACCACACACAATTGTCTTCT

The following amino acid sequence <SEQ ID NO: 54> is a predicted amino acid sequence derived from the DNA sequence of SEQ ID NO: 3:

<SEQ ID NO: 54>
RTVPPYLYNTDVWFFFIIRHYPW

The following DNA sequence Ion34 <SEQ ID NO: 4> was identified in *H. sapiens*:

CCGGCCTTCCCGTGCCCTCACAGTCCTCCTCCTCAGCTGTTTCAGCTAAAGTCCCAGGATTAATGCTT
ATTGGCTGGCTTGGGCCTGAACTGAACTCCCTGAACTGAGGCTAGCAGGATGAAATGCTCTAATCAGC
CAGATGTGAGTCATTACCCCCCTCCTGGAGCCTGGGGCTGGGGACCTGTGGGTGTCAACCCTGCCAAG
TGACCTGGACAGAACACAGAGGAGCAGAACTCCCCAGAGGGAAGTGGAGAGGTGGGGGTGGAGGGA
CACAGAGCCAGCAGGGCCACCGGAAGGAGGCCCTTGCAATTTCTGCACATCCACCCAGCCAGGAGAGA
CAGCTAGGCCAGGGGTGCGGCAGTGCGTGCAAGGCGTTTTCTTGCAAGGAGAGGCTGGTGTTCACAG
GGGACAGGAAATGTGGGTGAACTCAGCCGTTTTCTTTGCGGGGGCAGAATGTACAGGCTGATACAGTG
ACCGCAGAAGCTGCTGGGTCCCCCTGTGGGTTTTGTGGCAGTGAAGACCCCGTCTGCCCCCTGCA
CAGCTCCTTGGGCTTCCAAATATTTGTCTGTGCTGACAGCTT

The following amino acid sequence <SEQ ID NO: 55> is a predicted amino acid sequence derived from the DNA sequence of SEQ ID NO: 4:

<SEQ ID NO: 55>
GGRRGSSLPQNPTGGPSSFCGHCISLYILPPQR

The following DNA sequence Ion35 <SEQ ID NO: 5> was identified in *H. sapiens*:

CCTTTCATCAATTCTTGAAAATTCTTAGGCTTTATGTTTCAAATATTGCCTCTTCTCTTTTCTTTTA
CTTTTGGGAACTCCCATATGTATATGATGGACTTTCTTATTCTGTCTTTCTATCTTTTCCATAT
TTTCCACTTTTATATTGGTCTCCTTTTCTTAGAATTTCTCAAATCTCT

The following amino acid sequence <SEQ ID NO: 56> is a predicted amino acid sequence derived from the DNA sequence of SEQ ID NO: 5:

<SEQ ID NO: 56>
LLLLGNSHYVDGLSYSVFPIFFHIFHFLYWSPPS

The following DNA sequence Ion36 <SEQ ID NO: 6> was identified in *H. sapiens*:

TCTGTGTGTTTACCCAGGGGACTGCCGCATGGCCCATGCCGAGCAGAACTGATGGACGACCTTCTGA
ACAAAACCTGTTACAACAACCTGGATCCGCCCAGCCACAGCTCCTCACAGCTCATCTCCATCCAGAC
GGCGCTCTCCCTGGCCAGTGCAATCAGCGTGGTAGGTGCAGAGGGTACCTGTGGCTCAGGCTCAGGTG
AAGAGGCAGCTCATGCCAAGCCCTAAGCAGTCAATGTCCAGAGGAATGAAATGACTAGAGTTGA

The following amino acid sequence <~~SEQ ID NO:~~ SEQ ID NO: 57> is a predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID NO:~~ SEQ ID NO: 6:

<SEQ ID NO: 57>
GDCRMAHAEQKLMDDLLNKTCYNNLDPPSHQLLTAHL

The following DNA sequence Ion37 <~~SEQ ID NO:~~ SEQ ID NO: 7> was identified in *H. sapiens*:

CCCTTGTGATTTCAGACATCTGCCCTGGGACCCACAGTAGGTTCCGAGGGAGACGTTTCAGCCTGGGCTG
GCCTGGGGATAGCCTAAAGTGGGGGTGCCATGGGAGGGGCTGAGTGCTTGGCAGCTTAGAAGGGTCCT
GGGGAAAAGCTTCCAGGGCAGCGTGGCAACCAGTTATGTGGTAGGGAGAGGGGATCACTACACCCCC
ACAGCTAAGGGCAAGTCTAGAGAGGGGTAAAGAGAGAGGAGGGGCCAGATAGGCAGTACTTGTATAG
AGTACGATGTCTGGCCGCCACACAAGACTGCTGGGGATGCGGATGGCATCCAGGCCACCATAGGCATT
GGGGTCCCATCGTAGGTAGGCATCTGTCCACTCCTGCCGTATCCACAGATACAGGGTCAGCACCTGGT
TCCGTTTCATCTAGTGGGGGCAGGGAATGGCAGAGATGTGGACATGTATATGCATATCCTGCCCTGTC
TGTGCACACTCCCCTGCAGGGCTCTGGTCAGCACCCACAAACCTGACTTGTCCATACCGTCCAGTTCC
CACCCAGACCTGACCTTGCCATGTGACCTTAGTGGGCTCTTCTCTTTTCTGCCCGTTTCTCAGCAGG
AATATGGGGTGAGAATCCCTGCTTA

The following amino acid sequence <~~SEQ ID NO:~~ SEQ ID NO: 58> is a predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID NO:~~ SEQ ID NO: 7:

<SEQ ID NO: 58 >
DERNQVLTLYLWIRQEWTDAYLRWDPNAYGGLDAIRIPSSLVWRPDIVLNK

The following DNA sequence Ion38 <~~SEQ ID NO:~~ SEQ ID NO: 8> was identified in *H. sapiens*:

CCTCTTAGTTTGTAAATCAGCCACCCTATTTTTTTTTTTTTTCCAAAAGCAAATTGTTCTTTGCAAGAAC
AATTCTATTGACTTCAAATTACTCTTGCTATAGGTCCTTTTTCGAAAGTATCGTCATGACATGTACACACA
GACTTGAGGGAAAAAAGTGCTTTTCTGAAAAAGTAATGATTGAAATTTTATTTTAAATGATTCCTTA
GATTGAATTCACTTTAGATTAACAGATTTTCTGCCCAATTGATTTTCTGGCATCCATGCAGTGATCC
AGCAGAGATAAAATGGGGGTTCAATTTAGTCCATGGCTCCAAGGAAAAGTGAGAGCCTGGCAAAGAGAG
CCAGCAAAGCTTCTTTCTTGCTGCTCGGTTGGAGCAGGACAACTGGAGCCGGTCAGCTGCTGACCAG
ATGCTGCCTTCAATTAATATTCCAACCCTCAAAGACATTTATCGCTTACTCTCGAAAGCAGAGCAGCT
GAGTAATAAAGGGAACCACTAAAGCTGTTTTTTTTTCAAGAGCATTTATAATGGCTAAATTGCTTGAA
ATAAATTAGCACGAAAAATAAACATAGTTTGTACAGTATCTGTAAAACAAATTTCCAATCTTGGGAAA
ATAGAGCGACAAAGTGGGAGCTTGCAAT

The following amino acid sequence <~~SEQ ID NO:~~ SEQ ID NO: 59> is a predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID NO:~~ SEQ ID NO: 8:

<SEQ ID NO: 59>
HFVALFSQDWKFVLQILYKLCLFFVLI

The following DNA sequence Ion39 <~~SEQ ID NO:~~ SEQ ID NO: 9> was identified in *H. sapiens*:

CAAGTGCAGGCCAATATATTGGTGTGGTCCTAACTCCAAGTGGTTTTAGGCCATATTTAATATCTGTC
TGCCAAAAGGCTATCAAGGGGTACTTTTCTGGTGACACCTTGTTAAATCAAGAATGGGGGGATAGGCT
GTGGTTATTAGGGTCACAAATGGGAGTGGGAGGATCAAGGTTTAAAGAAGAATGGAAAGGGTGGGAGA
GGCCGACAGGACAAGCTCACCGTCACTCACCTCTGTCCCTCACTGCCCTGATGCAGGTATGGGACAAT
CCTTTCATTAATTGGAACCCAAAAGAGTGTGTTGGCATCAATAAACTCACAGTATTAGCTGAAAACCT
GTGGCTCCCAGACATCTTCATCGTGAATCGTGCATATGCAGGCTGGGGAAGCCAGCGTGAAACCTCA
TCTGCCGAGAACAGCCTAGGGTCAGCACAGGGCATGGGGCCACCGAAAGATTGAGACAGGCACACAGT
CTCAACGAACTGACTTCCACACATCACTACGAGTAGAAGAGGCGAGAGAGTGACATTAAAGAAAGAGC
CCAGGGCCAGGCGCGGTGGCTCACGCCTG

The following amino acid sequence <SEQ ID NO: 9> is a predicted amino acid sequence derived from the DNA sequence of SEQ ID NO: 9:

<SEQ ID NO: 60>
LMQVWDNPFINWNPKECVGINKLTVLAENLWLPDIFIVES

The following DNA sequence Ion40 <SEQ ID NO: 10> was identified in *H. sapiens*:

CAATTATATACCTGTGTCTTTAATCCCTGAGAGCAGAATGATGAATATTTGAGCCCCAGTATATCATA
TATACATGTAATTAATTTTTAAAGGTAGTTCAATATTCAAATTTATTGCAAAGTGCCCAAGAACAGT
GCAAGTGTGACGACTTATAAATAGAACTACATTGACTATTTACATTAGGTTCTTGAGGATTGAAATA
ACATTCTTCTGTTTTTCCCTAATAAATGACAGGCTTATATACATAGACTTGAGTTAAAAATTGACCAAT
ATTAAGTCCCATGAGCCCGTGGTGAACAAATTATTGCTGTCATCTCAAACACAATAATTAATAGATTA
ATTACTAGGATTTACCAAAATGGCTTTTTGAAGATCTATTTTAAATGTTCTTTCTGTTAAAAAGCAGC
TTACACAAGTTTCCTAAATCTATACTGCCACTAATGATAGTACCACAGCATCTTAGTATAAAAATTTCT
GGAGTTTGAATGTTTGCCCCCTCCAAAATTCACGTTGAAATTTAATTGTCATTGTAAAAAGTATTAAGA
TATGAGACCTTTAAGAGGTGATTAGGCCACCCAGTATTATGGGTGGAATTAATGCCATTATGAAAGAA
TGAATTTGGTTCCCTTTTCTCTGTGTCCTTTGGCCATGTAATGAGACAACAAGAAAGCCCTTGTCA
GATGTCACCATTCTTTATATTGGACTTTCCAGCCTT

The following amino acid sequence <SEQ ID NO: 10> is a predicted amino acid sequence derived from the DNA sequence of SEQ ID NO: 10:

<SEQ ID NO: 61>
REPNSFFHNGINSTHNTGWPNHLLKVSYLNTFTMTIK

The following DNA sequence Ion41 <SEQ ID NO: 11> was identified in *H. sapiens*:

CTTCTTATTCTTGGACTTTATAAATATTTGAACCATCACATGTATAAGTTTCAGGCCATATGTAAATAA
GACATTGTACATACTTGATTGGTTTATTATTGCCTATTGCTTTCTCCCTATCAATTTCCCCAAAATCA
GTGTTATGCAGATTTACTGTATTAACTACAATTCCATTCCCTTCATCCTTTATAGCCATATAAATTAT
ATTTCTGAGAGTAGCTAATATATGCTGTGATTCCCTTAAAGTCAATATACCACAGTCTGATCCAATCTA
GGCAGAAAAGATATAGTGGGTCAAATTTGGAATTTAAACATAGGGCTTCTTCAGGTTTATTTAAGCTT
GCTAAAAAATCAAAGCCTACCAAGCTAGTTAGTCTTTCTGTGTCACACTTGCTACCAATGGAAGTTCT
CCCTTTTTCAGAAATAGAGGTCCACACAGTTGTCTGGAAGAAAATTGATCTTGCAAGTACATCATG
TCTATTCAACACCAAATTTACTAGGTTCAACATGGAGCATTCAATCAGAGTGTGTGCTATAAGAACC
AAGCTCACGTTTCATGTGATTATTCTGGTTGGGCCAATGAGTTGCTTGGGGCTCTGTAGGAAAGATTTA
CAGCAAAGTAGTAAGGCT

The following amino acid sequence <~~SEQ ID NO:~~ SEQ ID NO: 62> is a predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID NO:~~ SEQ ID NO: 11:

<SEQ ID NO: 62>

TLIECSMLNLVNLVLRHDLARSIFFQTTVWTSITSEKGELPLVASVTQKD

The following DNA sequence Ion56 <~~SEQ ID NO:~~ SEQ ID NO: 12> was identified in *H. sapiens*:

ATCAGCTGAAGGATCAAAGTCACAATTACTAGCTGTGAGTGTGCCAAGCTAACCATTTAGCACCCATG
CCACAAGCATGCTCTGTGCTACTCAGCATCATGTACACATTCTCAGAAGTGACACAAGTTGACATCAG
AAGTGTTTTGTATTTTCAGATTTAGGGATTTTTCATTATAGTTATCAGTTGAGCATCTCAAATCCTGAA
AATCCAAAACACTCCAATGAGCATTTCCTTTGAGTGTACATTGGTACTCAAAGAATTTTCAGATTTTG
GAGCATTTTGGATTTTCAGGTTTGGCATGTACATTAGTCCACGTTCCACTGTTACAAAGACATACCC
AAGACTGGGTAATTTATAAAGAAAAGAGGTTTAAATGACTCACAGTTCACATGGCTGGTGAGGCCAC
AGGAAACTTACAATCATGGCGAAAAGCACCTCTTCACAGGGCAGCAGGAGACAGAAGGGTGAGGAGCA
AAGGGGGAGGAGCCCTTATAAAACCATCAGATCTCCTGAGAACTCCCTCGTTATCACAAGAACAGCA
TGGGGGAAATCACCCCATGATCCCATCTCCTAGGATTCTACTGGATCCAGCACTGTCCAATAGATTT
TTTTTTT

The following amino acid sequence <SEQ ID NOS. 63> is a predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID NO:~~ SEQ ID NO: 12:

<SEQ ID NO: 63>

CISDLGIFHYSYQLSISNPENPKHSNEHFLVSHWYSKNFRFW

The following DNA sequence Ion57 <~~SEQ ID NO:~~ SEQ ID NO: 13> was identified in *H. sapiens*:

GACCATTTAGGTGGCTATGGTCATAATCATGAAAGCTTGGACACAGTGGTGGTGGTGACAGGTGATGAG
GTTTGGAGCAAAGGATGACGTGATCTGACTGAGGCTTAATAGGATCATTCTGGTTTCTGGGGATGAGA
AAGTAAAATTTGTAGATATTTTGAAGCATTTTCTGTTGGCCTGAATGGCAGGAGTATGTGTGAAAAAG
GAAGAAGGAATCCATAGACTTGCTATTTGAGTTTAGAAAAGGTTTGGCCTCATCAAGGTATACTCGG
TCACTGGGCGTGTGAAAAAAGATGGCCGAGGGAGAAATTCCTAGAAGGGGAAAATAGGGAGGGAGGACA
TGGGAGGATAACAGACTCCTAAATACATGTGGTTGAGTTCATTGGTTGTGCATATGGAAATTACCCCT
ACCTCAAACCATCACACAAATGATGAATTTAAGATATCAG

The following amino acid sequence <~~SEQ ID NO:~~ SEQ ID NO: 64> is a predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID NO:~~ SEQ ID NO: 13:

<SEQ ID NO: 64>

SSHVLPPYFPLLGLPRPSFFTRPVTEYTLMRPKPFLNSNSKSMDSFFLFHTYSCHS

The following DNA sequence Ion58 <~~SEQ ID NO:~~ SEQ ID NO: 14> was identified in *H. sapiens*:

ACTCCTGAAATCCTAGCCCGGACCCTGAGCCATTCAACTCAAGCAGCCCTGAGACTAACATAGGGAG
CTGCCTGGAGACTTCCCACAGTATTCATTCTGAGAGGAAGCTCACACAGGGTCTTAGACAGCTCCTAA
ATCCTAAGCAGCTACAGGAAGGCACCATTTTGAGAACACAGCCCTATCATACTGTATTCTGTGGAG
GGCCCAATAGCCCTGTATCTTCACATCCCTGGAGCCCATTGACATTCTCCACCTTTATTCACCACC

GCAGCTGGCTCTGCTGCCAAGGCCAAAATGCAAGCCATTGTTCAGTAACCCAGCTGCCTCCAGTAGCAG
GGCCACTGTGCATTTAAAGGCATCCCAAAAAAAGGCTATCTCACTTATAGCAGCCACCTGAGGCCAAA
ATGTGTGCTCCCCAGCCACCTTACTGTTGCCACTGAAAGCAACCCTGCCCTCCCTAGCAGCAGGGTCC
TGGCAGAGCTGCTGCTGCTCCACCCAGGCATTCTGCCAATGGCCTGGGATCACTACATTCCGGGGCTA
CCA

The following amino acid sequence <~~SEQ ID NO:~~ SEQ ID NO: 65> is a
predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID~~
~~NO:~~ SEQ ID NO: 14:

<SEQ ID NO: 65>

PETNIGSCLETSHSIHSEKLTQGPRQLLNPKQLQEGTILRTQPLSYCILLEGPIAPVSSHPWSPIDILHL
YSPPQLALLPRPKCKPLSVTQLPPVA

The following DNA sequence Ion59 <~~SEQ ID NO:~~ SEQ ID NO: 15> was
identified in *H. sapiens*:

CTGGGCAAGCTTTAAAGTTTGGGATTTTCCACTGTCCTTTCCGGTGCGAGCATTATTTGAATTTTGCA
GTAGTCTCCATAATTTACTGAGGAGCTACAGGAGGAGAAACAGAAACAGTTAGGATATGCCATGCTT
TCCAAGAGGAAGTGGCAACTGCAGTGAGGATGCATTTAAACAAACCAGTGTGAGGATAGATCTCTCTA
CGTTATGCAGATCCACTCCATTTCTAAAAGCAAGTTGAACAGCAAATTTTCAGTTGATGGGAACCTATA
TTTGATTATTTTAAAATAGGAAAACAGTGATTACATTTATAACAGTGTAAAATTGGTAATGTATTATT
TATAATTATTATAATCATGTGTTTCCAATCCACCAAAAGAATATGTACCAATTTGGCCAACTATCACT
AAAATACTCTTAAGTCTATAGTAAATCAACAAGTTTATTCAAGCTAATTACAACCCCCCCCCCTTTT
TTTTTTTTTAGCACTTTTGCAAACCTTTAGGACTGTGCTTGTGTGTGGTATACACATTGAAATAAACAGG
GTAATTTATTGTATTCTAACAATGGCTCCTTCTCTCCTCCTCCCTATGGAGGAATCCCCGGCAAGGAG
GAGTGAAAGGGTCTATGAGTGCTGCAAAGAGCCCTACCCCGATGTCACCTTTCACAGTGACCATGCGC
CGCAGGACGCTCTACTATGG

The following amino acid sequence <~~SEQ ID NO:~~ SEQ ID NO: 66> is a
predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID~~
~~NO:~~ SEQ ID NO: 15:

<SEQ ID NO: 66>

PARRSERVYECCKEPYPDVTF

The following DNA sequence Ion60 <~~SEQ ID NO:~~ SEQ ID NO: 16> was
identified in *H. sapiens*:

CAGCGCATCGTCAGGTCCCCCGCGCCCCGCTGCTCACCGATGAGCGGCACGCTCTCGGCCGGTGGC
ATGCTCTCGGCCAGCAGCAACTGGGAAGACGGTGAGCGCCAGCAGCACGGTGACGCCAGCGACACCT
TCTCGCCTGAGTCGGCAGGCAGGTGGAAGGCGAGCGGCGCAAGCAGCGAGATGAGCACGCAGGGCAGC
AGCAGGTTGCACACGTAGGGCGGCGGCGCGGCGGCGCAGCAGCAGCGTGAAGGTGACGTGCGGGGTAGG
GCTCGGAGCAGCAGCCGTAGGTGAGCACGCGCGCCGCGCGCCGCGCATGCCAGCACGCGCCACTCCACG
TTCTCCACGAAGTCCGCCAGGCTGGCTGCAGCGCCGCGCGGCCGCACATCCAGTTGGTGCCCGCCGTG
AGTCCAGGAGCCGAACGTCAAGCCGAGTGCTGGGCGTCAACCGGAAGGCTGCTACATCCACGCGGC
ACGAGCTGCGCGTGATGGCCGGCGGTTCCAGCGCACGGCGCCATCGTGGCGCAGGACCACGTTGGT
GCTGGCGGAACCTGGAGGCTGCG

The following amino acid sequence <~~SEQ ID NO:~~ SEQ ID NO: 67> is a
predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID~~
~~NO:~~ SEQ ID NO: 16:

<SEQ ID NO: 67>

NAPAITRSSCRVDVAAFPFDAQHCGLTFGSWTHGGHQLDVRPRGAAASLADFVENV
EWRVLGMPARRRVLTYGCCSEPYPDVTFT

The following DNA sequence Ion61 <SEQ ID NO: 17> was identified in *H. sapiens*:

CCTCCCCTAGCACTTGACCTTTATTAACCTCAGGTAAGCATCACCACAAACCTAGGAAGTAGGTCCTCT
GGGTATCCCATTTGTACAAAAGGGATTTCGTATCTTGCCCCAGCTCATGCCCGTCGTTATTTGAGAGC
GGGACTGTCCTGGATTGTGTATGAGTGCAGCCTCCAGCAGTGACGGGAGCAATTAGAGAGCAGTAGCT
TCTGATGACCCACGTGTAGGAATGAAGGATGGGGAGAACTCGGCCCTTACCTCCTTCCCTGCTTCCATC
CATGGGGCTTGGAGGGTCTGGAGAGCTTCATGGTGGGCTTATTTCCATTTGTGCAGAGGTGGCTGGGA
AGCTCAGGAACCACAGGCTTTTGTGTTTGTAGTCAATTGGCTTTCTCTCTCTTGCAGGGAAGTACTAC
TGGCCACTATGACCATGGTCACATTCTCAACAGCACTCACCATCCTTATCATGAACCTGCATTACTGT
GGTCCAGTGTCCGCCAGTGCCAGCCTGGG

The following amino acid sequence <SEQ ID NO: 68> is a predicted amino acid sequence derived from the DNA sequence of SEQ ID NO: 17:

<SEQ ID NO: 68>

SLSLAGKYYMATMTMVTFTSTALTILIMNLHYCGPSVRPVPWA

The following DNA sequence Ion62 <SEQ ID NO: 18> was identified in *H. sapiens*:

AGGGCCGGCTGGCTCTCAAGCTGTTCCGTGACCTCTTTGCCAACTACACAAGTGCCCTGAGACCTGTG
GCAGACACAGACCAGACTCTGAATGTGACCCCTGGAGGTGACACTGTCCAGATCATCGACATGGTGCG
TTGTGGTGGTGGTACAGCTGTGGAGTCTTACCTGTACAGTGTCAAGAAATGAAGGGGTGAGAGACTG
GGATTATTTCTCCATGGAATTTCTTTTCTGTAAATGTTAATATTAACAAAGGTAGCAGTTACAAACTGT
TGGGTACTGACTGTTGGGTACTGAGTATTGGGTGCCCTACCTCGTGCCCAATATTTTGTTCACCTGAAC
TTACTGAATCCCTGCTAAGCAGGGGATTCTACCCCATATTCCTGCTGAGGAAACGGGCGAGAAAAGAG
AAGAGCCCACTAAGGTCACATGGCAAGGTCAGGTCTGG

The following amino acid sequence <SEQ ID NO: 69> is a predicted amino acid sequence derived from the DNA sequence of SEQ ID NO: 18:

<SEQ ID NO: 69>

GRLALKLFRDLFANYTSALRPVADTDQTLNVTLEVTLSQIIDM

The following DNA sequence Ion63 <SEQ ID NO: 19> was identified in *H. sapiens*:

CAGTGGGATTTAGAATCCCTGGGTGAAAGTCTGGACTCTTGTGGCTTATTTGGGCCCTCTAGCATTT
GTGGAGAGGCGAGGAGACTCCAGGTCCTTGAAAAGGGGAGGGTGGAGGAGAAATTTGTCAGCCTGGCG
CCAGAAGATAGTACCAGTTCACCTCCATGGCCTTTACCTCATGTGTCCCTGCAGGCAGGCCAGGGAGGA
ACTAGAGCCACAGCTAGAGCAAGAGAAGGCAGACACCAGGAGGACACTCATAAGGACAGGGCCCCAGC
CCTGGGAGTGGAGGGTGTGAGCAGAGGCCCTGGGACTAGGGCTGGGATGGACAACCCCTCCTTACTGA
CCCTCCAGAGTGCCTGGGAGCTGAGGGCCGGCTGGCTCTCAAGCTGTTCCGTGACCTCTTTGCCAACT
ACACAAGTGCCCTGAGACCTGTGGCAGACACAGACCAGACTCTTGAATGTGACCCCTGGGAGGTGACAC
TGTCCAGATCATTCGACATGGTGCCTTGTGGTGGGTGGTACAGCTGTGGAGTCTTACCTGTCACAGT
GTCAAGAAATGAAAGGGGTGAGAGACTGGGATTATTTCTCCATGG

The following amino acid sequence <~~SEQ ID NO:~~ SEQ ID NO: 70> is a predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID NO:~~ SEQ ID NO: 19:

<SEQ ID NO: 70>
AEGRLLALKLFRDLFANYTSALRPVADTDQTL

The following DNA sequence Ion64 <~~SEQ ID NO:~~ SEQ ID NO: 20> was identified in *H. sapiens*:

TTAGTGACGCCCATTTATCCAAATCTTCTAACTATTCAAAAAGGGAATCCTACAAAAATAAATAATGCA
GTATTGTTTTATTGAGTTATACCTATATGCCCCACATACTCCACCAAAGATTTATTATTGATCTATCC
AGTCTCACCCATTTCTCTATTTTTCTATTTGTCTAATAAAGCAGTCCTCATTGTTCCTTTGTCTATC
TGCCATCCGTCCTTCCTTCCTTTCCACAGACTTCCTTCTACATCCCTGCCTCTGTCTTCCC
CATCATCAGTACATGACATCCCTATCTACCCATTGTTTAGACATCATCCCTACACTCACTGATTCTAC
ATTTTAATTATTTCTCAAATTCATTTACCTGGTGATTTTTCTCCATAAGCACCCCTAATCCTGACCTAT
GATTCATCTCTATACTGAGAGTCTCTTCATATTGTTTTCTACTATTTATTACAACAATAATTATAAT
TAGTAAGTGTGTTAATGTCTGTGTACCACTAACTATACCACAGCTCC

The following amino acid sequence <~~SEQ ID NO:~~ SEQ ID NO: 71> is a predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID NO:~~ SEQ ID NO: 20:

<SEQ ID NO: 71>
QSHPFYFSICLIKQSSFVPLSICHPSVLPSPFPQTSFYIPAS

The following DNA sequence Ion65 <~~SEQ ID NO:~~ SEQ ID NO: 21> was identified in *H. sapiens*:

TTTACAATAAGCAAAGGTGACAGCAACCCAAGTGTCCACTGACAGGATGAACGGGTAAACAAAACATG
GTATATACATACAATGGGAATATTATTTAGCCTTAAAAAGGAAGGAAATTCGACACATGCTACAATA
TTATGTTAAATCAGCAAGTCACAAAAGAACAATACTGTATGATTTCAATTATATTAAGTACTTAGGG
TAGCCAAATTCATAGACACACAAGGTAGCATGGTGGTTGCCAGGAGCTGGGGCAGGGGAAACGGGA
GTTATCGTTTAAATAGATAGGAAGTTTCAGTTTGGGAAGATGGAAGGTTATGGAGATGTATGGTGGT
GACATTTGCACAACAATATAAATATACGTAATGCCACTAAGCTGTATACTTAAGGATGGTTAAAATAG
TAAGTTTAAATGTTATATATATTTAACCACAGTTTTTAAAAATCCAAGTTCATTGATTCTTTAA
GTACTTCTGTACTTTCTGAAATAAAAAGATGTTCAAGCCCTTCTTATATTTTCCTTGCCCTACTCCTG
CTGCTAGCCATTTCTTCAAGAATTCTTAGTTCCTTTTAGTAGACTCATATTTAGAAACCAAGATCTGG
ACACTAGACATGCTCATTGCT

The following amino acid sequence <~~SEQ ID NO:~~ SEQ ID NO: 72> is a predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID NO:~~ SEQ ID NO: 21:

<SEQ ID NO: 72>
HYVYLYCCANVTTHLHNFHLPKLLPIYTITPVSPCPQLLATMTPCVSMNLATLSTYKNHTVFVLL

The following DNA sequence Ion66 <~~SEQ ID NO:~~ SEQ ID NO: 22> was identified in *H. sapiens*:

CTTCTGCCTCTTTTTTACATATTTCTATTTTTAAAGTTTGTGAGTCAAAGAAGTTTTCACATATCCTA
AATGCTTATTGGAATATGTATAATTACATTTGGAATGTTGATGCATACACTTCTGTTTTTTTTGTTTTT

CTTAGAGGAAAAGGTGTATTTTCCTCCATTGATTTGTGTAAATTTTTTTTCAAAGCTTAATAAGTAT
TTTATTTTGTCTGTTTCATTTTATGGCATTAGGACAATTTAATAATATTTCCAGTGTAAGAAAAAC
CTCTTCTTTTCAGTATAGCAAAATCCAAATAATTGAAAAGATTTTATTTGTTTTTCATGTGGAGAAAGAG
GTGAGTCCTCCGATTTTATGAATCTCTTTAGTGAGTAGGACATTAAATTTGCTCCCCCTTTTCTACTT
CTTGCCATCACTAACCAATTGCCAAATGACACATCTTCTGTTTTGTTTCCCAGAAGCTATCTGCAT
TTTTAAGAGCATCTGTATTTGTATCTAGC

The following amino acid sequence <SEQ ID NOS. 73> is a predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID NO:~~ SEQ ID NO: 22:

<SEQ ID NO: 73>
FSHILNAYWNMYNIWNVDAYTSVFLFFLEEKVYFPPLICVN

The following DNA sequence Ion67 <~~SEQ ID NO:~~ SEQ ID NO: 23> was identified in *H. sapiens*:

CCCACAAGTGTCAAAGGAAAAACGGAATAAGAATTCATTCAATAAAACAGGCCTTAAAGATGAATTTT
TTTAAAAAAGGTAGATAATGTTAACATGGAAAGTGAAATAGAGAGACAAAATTGAGAACTAGGC
AACATTACAGAGTTACCAAGTTAACCATAAAGGGAAAGGAATGTAGTAATGGCAAAGAGAAAAATCCTT
GAGATAATTACTCTGAATTCAGAAAAAAGGAGACAAGGAATAATCACAGAGTTGATGAAAAA
GATGGAAGGCAGAGATGATACAACATAGGAATAATTGGTTTCCTTTAATTAGGGACCCATACTAATGG
AACAGAAATAAGTTTACAGAAAACCTTTCCCTAAAGGAAGGAAGAAATAAACTATATATTGAAATGAC
GTGTGGTATATAAGAAAAAACTGATTGATAAAGAAGAATTTACATGGAAACCTCACTTCAAATAAAA
TCTGAAGACCTTCAATTGCCTCAAAGCCCAAGGTGACACATATGTCCATTGCCTCTGTGACTTCATCT
CATATTTATTCTTGAAGAAGTCACTCTTCACTGGCCATGCTTATCTTCCTTGCTGTCACTCAATATG
TCAGTGACAATAATGCCCATGGTC

The following amino acid sequence <~~SEQ ID NO:~~ SEQ ID NO: 74> is a predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID NO:~~ SEQ ID NO: 23:

<SEQ ID NO: 74>
ETNYSYVSSLPSIFFINSVIIPCLLFFSEFRVIISRIFSLP

The following DNA sequence Ion68 <~~SEQ ID NO:~~ SEQ ID NO: 24> was identified in *H. sapiens*:

ATAGTCAAACCAAACTGTATATGTACTTTAACTCCCATGGTTTCCCATTTCATTAAGCAGAAATTGAA
TGTGGAAAGGGCCAAATATTCTATTTTTCTCCACCTACCTTCCTTTTTCAGGGTGATTTTCTTTGAGT
TTGGAGAATGGGTCTGGAACTGTAAAGGCAGAAAATAATATTTATTTTACTAGTGCTGTTCTGTC
CTTCATTGGTTCCCTTAGCTAAGATTGACTGTCATTGATATTTATGAAGTTGGCATCCAAATGCTGAC
TCCATTGTGCAAAAAACAGAGAGTTTAAAGAGAACTTGTAGGATAGAAATTCATTCTAGTTTGGACTC
TCTAAATTCTCTCCTCTTAACTCTTGCCTGCAATAGTACACCACAATTTTCCCCCTTCATCAGGTGAC
CTCTTTGCATAAAATATTTAAAGAAGGGCTTATGCTTAGCAAGAGTCCACGTGGCCTACTTTACATA
CAAAAACTCAAAGATTCTTATTTTGTCAATTCTCTTTTCCTTCAAAAAAATAATGAGAGGAAAA
GAAATCTGGCACCTCATTGGCAGAGATCACCTGC

The following amino acid sequence <~~SEQ ID NO:~~ SEQ ID NO: 75> is a predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID NO:~~ SEQ ID NO: 24:

<SEQ ID NO: 75>

FFEFGEWVLETVKGRKYLFC

The following DNA sequence Ion69 <~~SEQ ID NO:~~ SEQ ID NO: 25> was identified in *H. sapiens*:

ATTATGACAGTTGATCCTCATAACAACCTCTGGAGCTACATACTGGGTGCTGTTGTTATTCTCACTTT
ACAGATGAGTAACTGAAGGTAAGAAAAGTTGAGTGCCCCGCCAGGGTTGCAAAGCGAGGAAGTGGT
GGAGCTGGGATTGGGTGTGCCACAGTCTCTTTCTTTGGGCAGACTGAACATGCCTAGGCTCCTAATGA
TTCTGCTATCTTCTTCTTCTTCCCTGAGCCCCGGGCTGTGCAACCTGTGGCCAGCTTTCCTGACGGGG
TACATCTCAACCCTACCCCATCCCTGAAAGAAGGGGCAACACGCAACACCCATTCACTCCCTCCCAA
TGCTGGCACTGTGCTGGGGCTGGGCTGTGATGGTGACGGTCCCTGCCCTCGCAAAGGATACTGTGTA
TGGGCACTGCGCTGTGATGTGTTGGCTGTCTATAGGCACACGCAGGAGGGAGACAGGGCTGAGGAAGTG
GAGAGAGTGAGACAGGCAAAGGGAAGCGGGAAGAGTGTTCAGGTAGAGGGAGAGTCTGAGCAGAGGC
CCAGAGACTGAAGAGACAGGCACATCTGAGAAGCTGAAGGGAGTCCAGTGGGTACGTGCATCAGGACG
CATGCTGGGAGGTCCCTGGGGTGGGGTTATGAAAGGTGCCAAAGAGACTGAATGGCCACACAGAGCAC
ACTGAAGCCACTACAGTTGCATATTCAGAAATGCCTGAGTTCCTGGA

The following amino acid sequence <~~SEQ ID NO:~~ SEQ ID NO: 76> is a predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID NO:~~ SEQ ID NO: 25:

<SEQ ID NO: 76>
EKLSAPPRVAKRGSGGAGIGCATVSFFGQTEHAAPNDSAIFLPFPEPRAVQPVASFPD

The following DNA sequence Ion70 <~~SEQ ID NO:~~ SEQ ID NO: 26> was identified in *H. sapiens*:

CAAATACATTGAGAAAACCTCTGTACTTAATTCACCTCTTTAGGACTCATAATACATATTAGCACAGTC
AAGACACTGAGAAAGTCCCTGCAGTAAATAAATGTGGTTTATGTTATTTAATCCAGTGTTTTAATATTA
GGGCACTTTTGCTAAATTACTGTGTGGTAACGAATAACCTCAAATCCCAGTGGCTTATAACCACAAA
GGTTGATTTGTTGCTCATATTTCTGTGCAGCTGTGCTTTGGCTCTGCTCCAGATGTCTTCTTCATTT
AGATGTAGGCTAAAGGTGCAGCCTTTTTTTCAGGAATATGCCATTCTTATGATAAAGGAAAAGAGCAA
AAGCCATGCCAGACAATGTCTCTTAAAGTGTCTTGCCCAAATGTGTCTGTACCGTGTCTCTCACATT
CCATTGTCCAAAGCAAATCACATGGACAAGGCCAATGTCTCACTAAAATGGAAAGTCACAGAGCCTCCCA
CAGTGCAGTGCAGCTCACATGGAAATGCACTGTATGTATATAATCCTCTTAGAGGAAACGAACAA
TAATGTAATAATGAAATCTGCCACAAAATACACTTATTTTTTACACCAAATCTTTTTTTAATTTAATTA
CCATATGATTGAGCAATTTTACTCTTAAGTATATATTCAAAGAAGTGTAGACAAGCATTCAAATGAA
AACTTGTAATGAATGTTTCATAGCAGCACTATTCATAGTAGT

The following amino acid sequence <~~SEQ ID NO:~~ SEQ ID NO: 77> is a predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID NO:~~ SEQ ID NO: 26:

<SEQ ID NO: 77>
WQISLLHYCSFPLRGLYTYSAPCDWQHCTVGGSVTFHFSDIGLVHVICFGQWNRDT

The following DNA sequence Ion71 <~~SEQ ID NO:~~ SEQ ID NO: 27> was identified in *H. sapiens*:

TATGGAATGAATGAATGAATGCATTGAAAGCCTACTTACCTAAAATCTCCTATATATTCAAATGATTA
ATCAAAGATCTTTTCAATCAACAAAATGAAGTGCATTTAGAAGGCATTGTGGGGTGAAGGAGATG
TGGCCCCCTTCTCTCTGGAGCTTAGAGTCTGTCTCCACCATTGAATCTGAAAAGCTAGCCAAATACAT
GAGTAAAAAAATTAATAATCCAAATCTTTTACCAATATAACATCGGATGACATGGCTGTAATGATCAA

TAATTACCTGATTCTTTCCGATTTCGGTTTTAAATGTTAAACATTTCAGTGATGGTTAACATACTCGCTG
ATGTGAAAGGGTGGGGGCTGACTCATTACTGGGGCTAGGACAAGGGCAAATCGTGGCTCAGAACTGTC
ATTCAGAGCCTCTTGTTTGTCTCTGTAGTCAGCTCAGTCACAGTAAGGTATGTGGTTTCTCTCAACA
TGTCATTCTTGTTTATGTACTCAAATGCTTCCTTCTCATTGTCAACATCTGCTCTGAACTTTAAGTC
AGGCCCACTTGTTTGTAGAATAGCTCATTGACATAAAGCAAATAACACATCCCAGCCAGTCAAATCCA
AGAAACTCAGCTTTAAAAACACATTTGTATTAAAGAATTTCACTGCAAATCCATTTCATTATGTTTACC
T

The following amino acid sequence <~~SEQ ID NO: 77~~ SEQ ID NO: 78> is a
predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID~~
~~NO: 27~~ SEQ ID NO: 27:

<SEQ ID NO: 78>
WICSEILYKCVFKAFLGFDWLGCVICFMSMSYSTNK

The following DNA sequence Ion72 <~~SEQ ID NO: 27~~ SEQ ID NO: 28> was
identified in *H. sapiens*:

CTCTCTTATGCTCTCCAGCAAAATAACTTCAGTGACTTTATCAGAAATGGGGTTTTAGACAGGATGTT
TCTTTGGTTAGATTGGTATCATGTGTCTTAGGTATTTATATCTTTATCCCTTAACCATACACATACT
TTACTTGGGGTAACCTTAGTAAATAAGATCTTCAATTAAGCTTAGAACTTTGTAGGATATTAGAAAGC
CAGAGTCCATATCTGTTTGTGGGGACAACCTCAGACATCCCATCTTCATTGACTATATTTTTGAGTGA
CTTTTTCGTAATTAGACTCTCTACCTTCAAATTCAGCTTCTGTGGGATCATTGATTAAA

The following amino acid sequence <~~SEQ ID NO: 27~~ SEQ ID NO: 79> is a
predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID~~
~~NO: 28~~ SEQ ID NO: 28:

<SEQ ID NO: 79>
VLDRMFLWLDLVSCVLGIYIFIP

The following DNA sequence Ion73 <~~SEQ ID NO: 28~~ SEQ ID NO: 29> was
identified in *H. sapiens*:

AGCTGAGCAGAGTCTATGCAGGCCCATTTGGCTGCCTAGCCAGTGGTGATCCCGCTCCCACCCTCATTT
CTTCTTTGTTAAGAAAACCATGACCTCATTAAATATTGGACACCTATAAACCTCAGGGACCTTGGTGC
AGCCTCCCCGCCACGTATTGGTGAGTCTAAGTCAACTCTGGTCATTTTCCTCTGGACATTGATTG
CTTGAGGCTTGGGCATGAGCTGCCTCTTCATCTGAGCCTGAGCCACAGGTGCCCTCTGCACTTACCAC
ACTGATGCACTGCGCCAGGGAGAGCTCTGTCTCGATGGAGATGAGCTGTGAGGAGCTGGTGGCTGGGC
AGATCAGGTTGTTGTAACGGGTTTTGTTTCAGAAGGTCGTCCATCAGCTTCTGCTCAGCATGAGCCATG
CGGCAGTCCCCTGGGTAAACACACAGACATGCTGGGCCCTTGTGCAGCTGTCCCACACTGCAGATGAC
AGTACAAAGCAGGAGCCAAGAGGGCCAGGGGAGCACAGGCACCCCGGGGGCCGGCTGAAGCAGTGAA
GGTGCTGGCGGACCAGGCTCTCCCTGGGGACTTCAAATGACATTCATGACAGAGCTCAGCTACTTT

The following amino acid sequence <~~SEQ ID NO: 29~~ SEQ ID NO: 80> is a
predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID~~
~~NO: 29~~ SEQ ID NO: 29:

<SEQ ID NO: 80>
GDCRMAHAEQKLMDLLNKTRYNNLICPATSSSQLISIELSLAQCSVVSAAE

The following DNA sequence Ion74 <~~SEQ ID NO: 30~~ SEQ ID NO: 30> was
identified in *H. sapiens*:

TCTGCAGGCCCCATTGGCTGCCTAGCCAGTGGTGATCTCGCTCCCACCCTCATTTCTTCTTTGTTAACA
AAACCATGACCTCATTAAATACTGGACACCTATAAACCTCATGGACCCTCCTCCAGCCTCCCCACCGT
GTACCGGTGAGTCTAAGTCAACTCTAGTCATTTTCATTCCTCTGGACATTGACTGCTTAGGGCTTGGGC
ATGAGCTGCCTCTTCACCTGAGCCTGAGCCACAGGTACCCTCTGCACCTACCACGCTGATGCACTGGG
CCAGGGAGAGCGCCGTCTGGATGGAGATGAGCTGTGAGGAGCTGGTGGCTGGGCGGATCAGGTTGTTG
TAACAGGTTTTGTTTCAAGGTCGTCCATCAGTTTCTGCTCGGCATGGGCCATGCGGCAGTCCCCTGG
GTAAACACACAGACATGCTGGGCCCTTGTGCAGCTGTCTCCACTGCAGCTGACAGCTATGAAGCAGG
AGCTGAGAGGGCCAGGGAGCACAGACACCCTGAGAGCTGGCTGAAGCAGTGAAGGTGCTGGCCGGCCT
GGCTTTCCCTGGGGACTTCAAATGACATTACGACAGAGCTCAGCTACCTCCTCCCCATGCCATACCT
CT

The following amino acid sequence <SEQ ID NO: 81> is a predicted amino acid sequence derived from the DNA sequence of SEQ ID NO: 30:

<SEQ ID NO: 81>
GDCRMAHAEQKLMDDLKTCYNNLIRPATSSSQLISIQTALSQAQCISV

The following DNA sequence Ion75 <SEQ ID NO: 31> was identified in *H. sapiens*:

CTGTGAGGAGCTGGTGGCTGGGCGGATCAGGTTGTTGTAACAGGTTTTGTTTCAAGGTCGTCCATCA
GTTTCTGCTCGGCATGGGCCATGCGGCAGTCCCCTGGGTAAACACACAGACATGCTGGGCCCTTGTGC
AGCTGTCTCCCACTGCAGCTTGACAGCTATGAAAGCAGGAGCTGAGAGGGCCAGGGAGCACA

The following amino acid sequence <SEQ ID NO: 82> is a predicted amino acid sequence derived from the DNA sequence of SEQ ID NO: 31:

<SEQ ID NO: 82>
GDCRMAHAEQKLMDDFLNKTCYNNLIRPATSSSQ

The following DNA sequence Ion76 <SEQ ID NO: 32> was identified in *H. sapiens*:

AGCTCCATCTCGATGGAGATGAGCTGTGAGGAGCTGGCGGCTGGGCGGGATCAGGTTGTGGTAACGGG
TTTTGTTTCAAGGTCGTCCATCAGCTTCTGCTCGGCAGGGCCATGCGGCAGAACCTGCGTAAACAC
ACAGGACCTGCTTGGTCTTGTGCAGCTGTCCCCCACTGCAGCTGACAGCTATGAAGCAGGAGCTGAG
AGGGCCAGGGAGCACAGACACCCTGAGAGCTGGCTGAAGCAGTGAAGGGGCTGGCCGGCCTGGCTCTC
CCTGGGGACTTCAAATGACATTATGACAGAGCTCAGCTACCTCCTCCCATGCCATACCTCTTCTCTCC
TCCTCCTCCCTCAATCAATGAACAGCATCCACGCTCTACACATCTGATACAAAAGTGGGTATCTCTT
CCTGACCCCTCCCTTGGTTCATATAAGTGGCCACCAAGTCTGTCTGTCTCTCCATCTCCACGGCTAC
AGCCATGTCCCTGCCTCCCCCGCCCTGCCCACCTTCTATTCTCTCCACCTGCACCCTGCCCCCTG

The following amino acid sequence <SEQ ID NOS. 83> is a predicted amino acid sequence derived from the DNA sequence of SEQ ID NO: 32:

<SEQ ID NO: 83>
AEQKLMDDLKTRYHNLIPPSRQLLTAHL

The following DNA sequence Ion77 <SEQ ID NO: 33> was

identified in *H. sapiens*:

AGACACCCAGTTTTGTATCAGATGTGTAGAGCGTGGGATGCTGTTTCATTGATCGAAGGAGGAGGAGGA
GGAAGAGGTGTGGCATGGGCGGAAGTAGCTGAGCTCTGTCTATGAATGTCATTTGAAGTCCCCAGGGAG
AGCCTGGTCCGCCAGCACCTTCACTGCTTCAGCCGGCCCCCGGGGTGCCTGTGCTCCCTGGCCCTCTT
GGCTCCTGCTTTGTAGCTGTCTATCTGCAGTGTGGGACAGCTGCACAAGGGCCCAGCATGTCTGTGTGT
TTACCCAGGGGACTGCCGCATGGCTCATGCTGAGCAGAAGCTGATGGACGACCTTCTGAACA

The following amino acid sequence <SEQ ID NO: 84> is a predicted amino acid sequence derived from the DNA sequence of SEQ ID NO: 33:

<SEQ ID NO: 84>
GDCRMAHAEQKLMDDLNN

The following DNA sequence Ion78 <SEQ ID NO: 34> was identified in *H. sapiens*:

TCTTATTTTTCCAATGTAGTTTCTAGAACCGTTAGCACAGAAAGTTATAAACATTGTATAATTATTCA
TCTAAATGAATTGTAATAAATACTACAAAAAATTATGTCTACTGGCTGTAACATAACTTAGTAATTAT
TCTGTTTGTATGTACTTAGGTAGCTTCCAGAGGTTTATGGCTAAATGATCTCTAATAATTATTCTTAT
TTTCAAATTTAAATGTCAATTGCTGAATATATACATAACAATAAAGGCTTTATAACTATGTGTATTAGT
TTGCTAGGAATGTCATAACAAAATACCATAGACTATGTGGTTTAAACAGCAGAAATGCATTTTCTCAC
AGCTTCAAAAAGGCTCTAAGTCTGGTATCAAGGTGTTAGCAAATTTGGTTTTTCTAAGGTCTATCTT
CTTTTCTTTTCAGATGGCTGCCTTCTTCTGTGTCTCACATGGGCTTTTCTCTGTGCATATGCATCCT
GTGTCTATGTCCAAATTTTCTTTTAAATAATGACCCAGTCATACTGAATGAAGGTCCACTCATATG
ATTTTCATCTAAGCTTAATTACCACTTTAGAGGCCCTATTTCTAAATATGGTCATATTCTGTGGAACGT
AGAATTAGCTCTTCAACATATGAATTTTGGGGGACAAAATTCAGCATATATTTCTTGATACATAGAGC

The following amino acid sequence <SEQ ID NO: 85> is a predicted amino acid sequence derived from the DNA sequence of SEQ ID NO: 34:

<SEQ ID NO: 85>
NLVFPKVYLLFFQMAAFFLCPHMGFSLCICILCLCPNFLFKIM

The following DNA sequence Ion79 <SEQ ID NO: 35> was identified in *H. sapiens*:

TTCAATCTGCAATGTCCTTGCACTGACCAGGGCTCCATTTCTTTATCAGAGGCTATGATGGAAATGA
TGTGGGAGTTACCTGGCTGAGACGGAATGACTCTGTGCATGGGCTGGAAACCCTGTGGCTTGCTTAG
TACACCATACAATGGTATTTACCTTGGACACCAGATTGCAGCAGGAGACAGGTAACATCATGTGACAA
TTTTTTTTTTTTTAATTTTTACCATTGTTTTCGTAGATATTCCTAGGCCAGTTCTAAGAGTTTGTCTT
TGGGAGATTAGTGCTGGAGGCCAGAAGTCTGAGATCAAGGTTGGTTTTTCTGAGGCCTCTCTCCTTG
GCTTGGAAACAGCCGTTTTCTCGGTGTCTTCACATGGTCTTTTGCTCTGTACCTGTCCAAATTTCTT
TTCTTATAAGGACATCACTTGTATAAGATAAGGGTTTTCCCTCATTTTAACTTAATTACCTCTTTAA
AGGCCCTATCTCCAAACACAGTTACATTCCGAGGTACTGCAGGTGAGGGCTTCAGCACATGAATTTG
GGCAAGGATGGAGAGGGTTGGAAACAATACAATTCACCCGTAACACCAGATCTGACTCCTCTCACTA
GCCTCCT

The following amino acid sequence <SEQ ID NO: 86> is a predicted amino acid sequence derived from the DNA sequence of SEQ ID NO: 35:

<SEQ ID NO: 86>
EFTWLRRNDSVHGLETLWLAYTIQWYFTLDTRLQQETGN

The following DNA sequence Ion80 <~~SEQ ID NO:~~ SEQ ID NO: 36> was identified in *H. sapiens*:

ATTGCCTGCTCTGGAAGCATGCAAAGTGGACCAAATTCAGTCCAAAGGTCTGGGAGTAAATTTAGCTC
TGCCACTTACTTGCCTTGTGACCTTGGACAATGATCATCTATAAAGGAGTGATGAGAAATAGTACTAC
TTCTTTGTTATATGTTGTGTGTGTGTGTTTTGCGTGTGCGCGCATGTGTGGGTGCGCGTATTTAAAAA
GCTAAGAAATGCAAAAGGGTCAAAAGCGCTAAGCCTGGGCTCAAGAGGTGCTCAGGGAAAGCTGATTG
TCAGTCAAAAAGTCAAACCTGCACGTTTCTACCACCACTTGCTGGTAGCGGTAGCGGGCAATGACTC
TTCGGGGTCTCCTGTGTGCGCTAGGCTGGCGCCGAGGTCTCGACTGTAGAAAAGATAGTTGATGTAG
ACATACTCCAGCAAGGACAGGAACACAAAGAACAAGCACACGAGGATATAGATATCAATGGCCTTGAT
ACAGGAAATGTTGGGGAGCTTATCCCGCAGATGTGAGTCGATGGTGGTCAGGATGAGCATTGAAGTTA
AGCCTGTAAGCAACACAGTACAGACTTAGTCTCCTCTGATGGCTAACGTTCTTGGCAACCT

The following amino acid sequence <~~SEQ ID NO:~~ SEQ ID NO: 87> is a predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID NO:~~ SEQ ID NO: 36:

<SEQ ID NO: 87>
GLTSMILILTTIDSHLRDKLPNISCIAIDIIYIXXXXXXXXXXXLEYVYINILFY

The following DNA sequence Ion81 <~~SEQ ID NO:~~ SEQ ID NO: 37> was identified in *H. sapiens*:

AAACATTCAAACCTGTATCAGAGGCCAAGGCAGTTCAGGCTGAGTGAACAGCAGTGTCAAATACTGCT
CAGGTCAGAGCTGGTGTGGCCAGTGAAC TGGGAAATTTAACATCAGAGGGGGCAATCTTGACTTTTCT
CAAAGCATTCTCAGTGGAGTGGTAGGAGTAGGAGTGAGGTCCAGAAGATTTGGGGATGAGTGAGTGGC
TGAGATGGGAAAACAGCAAGTGTAGAAAATCATAAAGTTTGGTTGTGAAGTGACAGAAAAGAGTAGC
TAGAGAAGTGAAGGATTTTCTTAGCTGGTAGAGATCCAGGGATGCTCCATTGCTTATGAGGGGACA
GGAAAGAGGGGAGGGTTGAAGATATGGGATGAATGACAGGGAAGAAAGCATTCCCAAACACAGAGGAG
GTCCCCCAAAATGGATCCTGATACAGGTAAGTGGAAAGGTTTGTGGCAGAATGTTGAGAAACCATCCA
TTCAATGGCTTCTGTTTAGTCTCTGATATGAAAGACAAAGTCACCTGCCAGATGGATGAAAAGATAG
TGGGATAGAAAACATGGAAAAAAAACAAAAAAGGGAAAAAGGTTTGAATAGCCTTTGAGAAGCATGAA
GAGAGAGCTGGAGGCTTGCTGAACTCTGCTGAGAGCCAGTGGAGCTGGAGACTG

The following amino acid sequence <~~SEQ ID NO:~~ SEQ ID NO: 88> is a predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID NO:~~ SEQ ID NO: 37:

<SEQ ID NO: 88>
LSFISETKQKPLNGWFLNILPQTFPLTCIRIHFGGPPLCLGM

The following DNA sequence Ion82 <~~SEQ ID NO:~~ SEQ ID NO: 38> was identified in *H. sapiens*:

CTTTTAAACACAGTTGGGACACTACCATTAAAGAGGAATCTTCATCACTAAAAGTAAGGTAATTTTGT
TAGAAAATGCAATCCTAACACAAAAAATCGGATCAAAGGTAAATCACAAATAATGTTTGAGGTACAA
AGAATCTACCACTGTGGGAAAATTTCAGGCCATAATAAACCACTCTTTACACAGGGGATCCAATGGGAG
ACATTTGAAAAACAGAAATACACTTTTCTTGGTGAGCAATGTTAGGTACTCCAGTTTCATCTTAACTT
TGTCTTTGGTTATGGGTCTCAAGCGTCCCTATTTCTGTAAACAAACACATAAATATTCAAAGAGTAT

CTCTAAGTAAGTTGAGGTTTATAAAATAGAAATTTTCTTTTTTAACATACCGAGGCTTTATTTTTTTAG
CTTTCTGTCTTTAGTAGCAGTCTTTCTTTTTTGTTGCTGGTAAAATAATGCAAGGTTCCATATTCCA
TCAAGGGCTGCAAAAACAAAATGAAACAAACAGAAACAAAG

The following amino acid sequence <SEQ ID NO: 89> is a predicted amino acid sequence derived from the DNA sequence of SEQ ID NO: 38:

<SEQ ID NO: 89>
LFLFVSFLFLQLMEYGLHYFTSNQKGKTATKDRKLNKASV

The following DNA sequence Ion83 <SEQ ID NO: 39> was identified in *H. sapiens*:

CTCTATGTAGCCCCAACTAAACATGTCTGTGGGCTAGATTAGCCCTTTGGCCAGCTGGCCACCAGTTG
ACCATTTCTGTAGACAAGATTCTCAGAAAGGCAACCACAGCCTCACTTTTACAGGATTATTTTCTAC
CTAAAGAGGCATGTGCATAAATGGCAGGATGCCAGCACACCTCATTTTACTGTGTTTCACTTTATTG
TACTTCACAAATATTGCATTTTTTAACAAATGGAAGGTTTCTGGCAACCCGTGTGTCAAGCAAATCTAT
CAGTGCCATTTGTCCAACAGCATGCGCTCCCTTCTGTCTCTGGGTACATTTTGGTAATTTTGC GA
CATTTTCACAGTTTCTCATTATTATTATATCTGTTATGGTGATCTGTGATCAGTGATCTTTGATATTCC
TATTCTAATTGTTTTCAGGGAGCCACAACTGTGCCCATATAAGATGGAAACTTCCAATAAATGCTGT
GTGTGTTCTGACTGCTCATCACTGATTGGCTGTTCCCTCATCTCTTCTTCTCTCCTAGGGCCTCCCTA
TTCCCTGAGAGACATCAATACTGAAATTAGGCCAATCAATAACCCTACAATGGCCTCTATGTGTTCAA
GTGAA

The following amino acid sequence <SEQ ID NO: 90> is a predicted amino acid sequence derived from the DNA sequence of SEQ ID NO: 39:

<SEQ ID NO: 90>
LASWPPVDHFCRQDSQKGNHSLNFYRIIFYLKRHVHKWQDAQHTSFYCVSLYCTSQILHFLTNGRFLATLC
QANLSVPFVQQHALPCLWVTFW

The following DNA sequence Ion84 <SEQ ID NO: 40> was identified in *H. sapiens*:

TCCAGCTCAGAACTACCAGCCTTCATCAACATGCTGAGCTTAGGGGCATGGATATGTGGAGAGCAGG
AGCCTCAGTGGTGCCCTTGTTGCCCCAGTCTGGCTGGACACTCGCCTGGCCTGGAACACTAGTGAC
ACCCGCGGCACGCCATCAGCTGCCCTGGGAGTCTCTCTGGACACCAAGGCTCACCATCCTGGAGGCG
TAAGTGAGACAGTTCTGCCCCAGGAATCTGCCATGCATAGCCCTCCTTTCCCCATCTACAACCTAG
AGGCTGTCTGAGTGAATATGACCCTCCTGGCGGTCCCCGCGGACTAGCAGTGACCTTCACTGCCTC
GAATCCCCCTCCCACTGCCAGAACTCTGAAAGCAGCTGGGGTTGGGGTTGGGATGCCAGGGTCTCCCC
CCGGCCCCGTCCAAGAAGGGGCTGGGGCTCTGGCTGTGGTGCCTTTCCCCACAGGCTCTGGGTGGACT
GGAGGGACCAGAGCCCCCAGGCTCGAGTAGACCAGGACGGCCACGTGAAGCTCAACCTGGCCCTCACC
ACGGAGACCAACTGCAACTTTGAGCTCCTCCACTTCCCCCGGACCACAGCAACTGCAGCCTCAGCTT
CTACGCTCTCAGCAACACGGGTGCTGACAGGGCAGGGGCTGCAGGGTTGAGGAGGGGA

The following amino acid sequence <SEQ ID NO: 91> is a predicted amino acid sequence derived from the DNA sequence of SEQ ID NO: 40:

<SEQ ID NO: 91>
RVDQDGHVKLNLTETNCFELLHFPRDHSNCSLSFYALSNT

The following DNA sequence Ion85 <~~SEQ ID NO:~~ SEQ ID NO: 41> was identified in *H. sapiens*:

AGGCCATGGCAACCTGAGCCTCTGGCCTTGCTGCAAGGGGCGAGCCACTGCAGTCGCCATGGCTGTG
GAGGGCAGTTGCTCTGGGGAGGACAGAAGACTGATGTGCTCGGACCTCTGGGATTGCAGAGCTGTGTC
GAATGTTTGAAGTCTGTACCCCTAGAGAGGGGGCCCTGAGGCTACCGCTGAGCACAGAGATGGGCTGCCA
CTCGAGTGGGGGGCGCAGTGGGAGAGCAGGTGCTGCCCCGCTAAGCCTGGGGTAGACTGCTCTGAACA
CAGATCTGGGAGTTTCGCCTTCTGTCTGCCTTTGCCCCCTTCCCCTTGCCCCGCACCCTGCCCTGCACC
ACAGACCTGGGAGTTCCCCCTCCCCCACCTTCCTCCTCCCCTCCTCAACCCTGCAGCCCCTGCCCTGTC
AGCACCCGTGTTGCTGAGAGCGTAGAAGCTGAGGCTGCAGTTGCTGTGGTCCCGGGGGAAGTGGAGGA
GCTCAAAAGTTGCAGTTGGTCTCCGTGGTGAGGGCCAGGTTGAGCTTCACGTGGCCGTCTGGTCTACT
CGAGCCTGGGGGCTCTGGTCCCTCCAGTCCACCCAGAGCCTGTGGGGAAGGCACCACAGCCAGAGCC
CCAGCCCCTTCTTGACGGGGCCGGGGGAGACCCTGGCA

The following amino acid sequence <~~SEQ ID NO:~~ SEQ ID NO: 92> is a predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID NO:~~ SEQ ID NO: 41:

<SEQ ID NO: 92>
RVDQDGHVKLNLALTETNCNPELLHFPDRHSNCSLSFYALSNT

The following DNA sequence Ion86 <~~SEQ ID NO:~~ SEQ ID NO: 42> was identified in *H. sapiens*:

AATTATAGAAAATCCAAATATCTGGCTGGGGTGAGAGTCTGTAAGCTAGCCAGAGAAAACAGCTAAG
GCTAAGAAAATAAAATATAGGAGAAAATTCTAGAAAATCCAGATATCCTGGCTGGGGTGAGAGTCTGT
AAGCTAGCCAGAGAAAAGAGCTGAGGCGAAGACAATAAAATATAGGAGAAAATTCTAGAAAAATGAAA
ATTGGTTTATTGTCCAGATCTGTACCCTTCTCCCCCTCTGATTGTTCACTTGATTTTAGATGGTGAA
TGACAAATATTGGTGAAGAAAATCATTCCATGAAACACTGGTAACCATTGTCCGAAACGCCTTCATG
GCAGCACTGCCGTGGCTCAGTACATTGCACCTGCACTTCCAAAGTGAAGGTGACTGTTACCTGAAACC
CATGTGCCTGGCACACATGACCAGCCTTGGACACAAGAGGCCTTTGATCAGAACTGGGAGGCACTCC
CACATTCCCACAATGAAATTCCGTGGGTGCCTGTACCCTGAGTTCATCCAACACATGGTTACTGATCA
TGTAGGGTGTACCAGGCTATGTACAGCTTAGAGACACCATGAAGAGCAAACAGTTAGCTTATGGGGA
GTGCCTAACGCACACCTGCCATTTACATCTTTGTCTCATGATTCTTCCCACTGAACCAATGGCACTG

The following amino acid sequence <SEQ ID NOS. 93> is a predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID NO:~~ SEQ ID NO: 42:

<SEQ ID NO: 93>
LEFSPIFYCLRLSSFLWLAYRLSPQPGYLDLFLEFSPIFYFLSLSCFLWLAYRLSPQPGY

The following DNA sequence Ion87 <~~SEQ ID NO:~~ SEQ ID NO: 43> was identified in *H. sapiens*:

ATGTCTCTTTGTTTAATTAGTTTTGGGTGGCTCAATTTTTAGGACTATTGTTCTGTTTTCTTTCTTCT
CAGTTTTTAATTGCCAATTTAAGCTCTGGACAAAATCTGAAAATTTACAACCTGGAATTTTACAAGAAGG
CCTCGTATTATAAAGTTTGTGCTTGGTTTGTGAGACTTGGGTTGTGGACAGTTTGAATAAGGTTTTCT
ATAGAAAAGCATCAGTGAAAGAAAGAAAATAAAATATATTTTAAAGTAACTTTCCTCCTTCCAATAAA
ACTTCTAAAAGTCAATACATATGACTTTTTCAAAAACATAAAAAAAATGCCAGATATAGGGCTCTTC
ACCCAAAGATTAAAATAAGTTTTTTTTTAAAACAAACAAACAAACAAACAAACAAACAAACAAACAAAC
ATAAAAGTGCCTCTTGGTAGAATATGCAATGAAAGTGTAGGTTGGGTCCAGAGAAACAGTTGTGTGCA
GACATCAATTCTCAGGAGACAATGAGGAGTGAAGCAACAAAGATTGAATGGCGGAAAGTTGAAGGGTG

ATACTGTTGAAATAG

The following amino acid sequence <~~SEQ ID NO:~~ SEQ ID NO: 94> is a predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID NO:~~ SEQ ID NO: 43:

<SEQ ID NO: 94>
FNFPFNLVCFTHCLLRIDVCTQLFLWTQPTLSLHIL

The following DNA sequence Ion88 <~~SEQ ID NO:~~ SEQ ID NO: 44> was identified in *H. sapiens*:

TCTCCTTCATAGATTACTCTTTTCATTACCCCTTGTCATATAACATCTTAGCTGTGTGAGACCAGGG
AGAAAGGTGTTGGTCACCTACCCCTGGCAGTAGGAAGTCTTTCAGATCTGATATTAATTGTGTATTCA
AATGTCAAGGTATCCTAGTACAGAAAATATCAGTGGGTATTCTGATAAGGAAAATACTATTGCTAA
TTTAGAAAAGAGAATATGCTAAAAGTTACACCTCAGAGGGAATATCATTGATATGGTGAACAGGAA
ACCCAAGAAGTTGTGAATTCCATTCAAAAGATGAACTGCTTAGAAGATAATGTAAGGTTCTCACCCA
ACATGAGCACTGCACTCAAGGCCATTTCTAGGATGAAAGGGTGGGATGATTATCTATTATCCAGCCA
TGAATTATTTCTGTGGCCTCCAGAAGATGCAACTGAATTGTAGCTATGTGTCCAGAATCGGTTCTTC
TGGTGGGTCTTGGTCTCGCTGACTTCAAGAATGAAGCCGTGGACCCTCACGGTGAGTGTTCAGTTCT
TTAAAGATGGTGTGTCTGGAGTTTGTTCCTTCAGATATTCAGATGTGTCCCGGAGTTTCTTTCTCTG
GTGGGTTTTGTGGTCTTACTGACTTCAGGAGTGAAGC

The following amino acid sequence <~~SEQ ID NO:~~ SEQ ID NO: 95> is a predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID NO:~~ SEQ ID NO: 44:

<SEQ ID NO: 95>
ASRRCNIVAMCPESVPSGGFLVSLTSRMKPWTLTVSVAVLKDGVS

The following DNA sequence Ion89 <~~SEQ ID NO:~~ SEQ ID NO: 45> was identified in *H. sapiens*:

AGCAGTGGCATGATAGGTTTCACTCCTTGGAGTCTATTGTGTGTGTTTGGGGCCCCGTAAAATATTAGA
AAGCGATGGAAATTTTAGGGCTCCGTATAATATTGTATTACATAACCACTCAGCTCTCAACTACTCT
CAAAGAGTACCTACTGAAGATCATGTCTTCAACTTGCTAAGGCTGATCTGGGTATTAGCCAACTCTCT
GAGTTGAAGGAAACAGATGTAACCAGGTCATCTCATGAAATGGAGCTCTATTGTTTCAGTAGATGAGGT
AGTAAGTGGAGCAGACACTGCTGTTTGCCTTCTCCCTGGCTAACAGAGGACTGACATTGACTGGATTA
AAGGATAGAGCTACCCTGTACTTCAGGCGGCTGCATTCCTCCCTGCCGGCACCAGTGATTGATTAGG
AATGGGTAGAGGTGCAATTCTGACCAATGAGACGTGGGAGAAGCTTGCTGGGGAGTTGGTGGGGTAT
TTTCCTTTTGCTTTAAAAGGGGCAAAGGAAAGGTACATTCCTTTTTTTTCTTTTTCATCTCTGGA
TGTCATTGCCTGGAACTTTTGCAGGCTTCTGATACCATGAG

The following amino acid sequence <~~SEQ ID NO:~~ SEQ ID NO: 96> is a predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID NO:~~ SEQ ID NO: 45:

<SEQ ID NO: 96>
GAILTNETWEKLAGELVGYFPFALKGAKERYIPFFFPFSSLDV

The following DNA sequence Ion90 <~~SEQ ID NO:~~ SEQ ID NO: 46> was identified in *H. sapiens*:

CCCAGCAGAACATAAGGTTGTGGCTGGGACATGAATGCACCCCAGGGAGCACTGAACTGCTCTGAGCT
GCCGACTAGGGCCATAGGCTAGCTATGTGGGCCCATATTGAGGTAGGGGCTGAGCAGTCCCAGCGGCA
CCGCCCAGGCTGCCTGCTCTGGGGTCCCTGCAAAAGCCGCGCTGAGCCCACGGACTTCCGGGTCGTA
AGCACGTGGGGCCTGAACATCTGCTTGGCTGGGTGAGCTGCTATGACAATGCCCGGGCGATCGTGCCC
TCCAGCGCTGCCTGCATGCCGAGGAGGAAGCGAGTCCCCACGTGAATAATCGGGCTCCGCGGCTCAC
AGCGGATGTCAGAAGGTCAGGTCGCTCTGCTCCTTTTCGCTCCGTTTTTCTTCCTCATGGAACTTTC
TTCAGCTGCAGAAAAGCTGGTCCTTTTCTTTCTGCTGGGCCACAGCTTCTCCTGCAAAGTCAAAT
TTGTTCTTCGGTCTCCTCTGGTGACATTCTCTCTTCCATCTCCTTTCTCTTCCTTCGTCTGCTCTTC
CTCCATCTTCTCGCCATCACCTTATCGCCCGCTCCTCTTCCCTCTCGCCCCGAGCCTGCGCTCCCG
CCGGGGGCGCTCCGGACACACTGTCTGCGC

The following amino acid sequence <SEQ ID NO: 97> is a predicted amino acid sequence derived from the DNA sequence of SEQ ID NO: 46:

<SEQ ID NO: 97>

KRECHQRRPKEQILTLQEKLWARQKEKDQLFLQLKKVSMRKNNGERSRATPSDIRCEPAEPDYSRGDSL
PRHAGSAGGHDRPGIVIAADPAKQMFVRPHVLTTRKSVGSAAAFAGTPEQAAWAVPLGLLSPYLNMGPHSP
ALVGSSEQFSAPWGAFMSQPQP

The following DNA sequence Ion91 <SEQ ID NO: 47> was identified in *H. sapiens*:

CTTTTTCTGCAGCTGAAGAAGTTTCCATGAGGAAGAAAAACGGAGGCGAAAGGAGCAGAGCGACCTGA
CCTTCTGACATCCGCTGTGAGCCGGCGGAGCCCGATTATTACGTGGGGACTCGCTTCCTCCTCGGCA
TGCAGGCAGCGCTGGAGGGCAGATCGCCCGGCATTGTATAGCAGCTGACCCAGCCAAGCAGATGT
TCAGGCCCCACGTGCTTACGACCCGGAAGTCCGTGGGCTCAGCGCGGCTTTTGACAGGGACCCAGAG
CAGGCAGCCTGGGCGGTGCCGCTGGGACTGCTCAGCCCCCTACCTCAATATGGGCCCACATAGCTAGCC
TATGGCCCTAGTCGGCAGCTCAGAGCAGTTCAGTGCTCCCTGGGGTGCATTTCATGTCCCAGCCACAAC
CTTATGTTCTGCTGGGCCACTTTCAGCACACCCAGACAGGGTTCTCTTCTGGTGCTGCTCTGTCTTT
GAAACCGCAGATAGACCATGCTAACCAGCACACAGGTTTCCCTGGTCCATCCTCCCTGACCCCATGC
ATGCCCAGGCTCTGCATCCAGGCCCTAGACTCCTTGCCTAATCCAGCTCCCCGCGAAGATGCAGCCA
GCAGGAACGTCTAGGTTTTCAGCTACCAACCAACCAGGCCCTCA

The following amino acid sequence <SEQ ID NO: 98> is a predicted amino acid sequence derived from the DNA sequence of SEQ ID NO: 47:

<SEQ ID NO: 98>

GSAGGHDRPGIVIAADPAKQMFVRPHVLTTRKSVGSAAAFAGTPEQAAWAVPLGLLSPYLNMGPHSPMALV
SSEQFSAPWGAFMSQPQPYVLLGHFQHTQTGFL

The following DNA sequence Ion92 <SEQ ID NO: 48> was identified in *H. sapiens*:

TCTGAAGCTGCCGTGTATGAACATACATCTACACATACACACACACACACACACACACACACACAC
AC
TACGTTTATATTATGTTACTTTTAATGGATGAATATGTATCGAAGCCCCATTTTACATTTACATACAGT
GTATGTATATCCTTCCCTCCCTTCCCTTCAATCATTATTTATTAATAATTTTCGTTTATTTATTTCTTT
TCTTTTGGGGCGGCGCCGCTGGTCTTCTGCTCTGCGCTCTGGTGACCTCAGCCTCCCAAATAGCTG
GGACTACAGGGGATCTCTTAAGCCCGGGAGGAGAGGTTAACGTGGGCTGTGATCGCACACTTCCACT
CCAGCTTACGTGGGCTGCGGTGGGGTGGGGTGGGGTGG

The following amino acid sequence <~~SEQ ID NO:~~ SEQ ID NO: 99> is a predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID NO:~~ SEQ ID NO: 48:

<SEQ ID NO: 99>
CIEAPFHLHTRVCISFLPSFIHYLLIIFVYLFSLGPARLVFCLCALVTSASQIAGTTGDL

The following DNA sequence Ion93 <~~SEQ ID NO:~~ SEQ ID NO: 49> was identified in *H. sapiens*:

TCTATAGCTCCCACCCTATTACAGAAGCCTGGTGGATATCTTCTGACCGTAGCACTTTATAGACAAC
CCAGTAGAAGATATTGAAGATGAGGAAAGTGAAAGGGAAGACAGCCCGGGAGATGGTGTCAATTCTCT
TGGCTCAGTCCACGTAGAGTTTCCGCGTGGTTTCTCCTTCCCTTAGAAGAGGGGCTGGAGGTTGGGGA
CTATAAATGCCAGAACCTTCCATTGGACCTCCATCTCTTGCCTGCAGGCAGTGGCCCAAGCCATAGCC
ACGGAAATAGAAACGACTTTCTTGGATGATATCTTCTCCTGGAATTACAAGGAAGAAACGGCAGAAT
TTGAGGTCAAAGCTCAAAGGCAGAGGGATAGAGAACAGACCACCCATCAATATCTCATAGGGAATGTT
ATGCAGACAAGGTGCCTTGGGTACACAGGCCCATTCATGCTTTTTATGGTCACAACACTACTCATGA
GATAGATGTATGCTAAGCAGCTCTACGTGCTATATATAGTGTATGTCATGATTCCATGGCAGATAGGC
TCTAAGCTAC

The following amino acid sequence <~~SEQ ID NO:~~ SEQ ID NO: 100> is a predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID NO:~~ SEQ ID NO: 49:

<SEQ ID NO: 100>
QEEDIIQESRFYFRGYGLGHCLQARDGGPMEGSGIYSPQPPAPLLREGETTRKLYVDAKRIDTISRVPFP
TFLIFNIFYWVYKVLRSEDIHQ

The following DNA sequence Ion94 <~~SEQ ID NO:~~ SEQ ID NO: 50> was identified in *H. sapiens*:

TCATTAATTTATTACTAAGCACTAGTGGAAATCTAACTTTATTTACCCCCATCAACTTGGCTTGTGTT
ACCAGAACAAGAAGGCAACCAACATGAAATGCTTTGGGAAATGACCCACTAGACTGAACGTCCAAAT
CACTTTTGTCTGTACATACTGTATGACAGCGTTCTCAAACCTCTGTGTGCAGAACACCCCTGAGAAC
TTGTTAAATAACGGTTCCTGAGCCCCAGCCAGAGCGTATGGTTCAGTAGTTTGGGGGTGAGGTTGG
AGAATTTGCATTTGTAGTAAGTTCCAGGTGATACTGCTGCTGCCACTGGTCCTGGACTACACTTTGA
GGAGCCTGCTGAACACAGCACCTCAGCCTCTACTTGAAGGACAACTAGCTTCTTACTGGATTTCAGTG
GCAAGATTAAGCCCACTGGTTCTCAAACACAATCCCTTGGGAACACCAGTGCTCTACCAC

The following amino acid sequence <~~SEQ ID NO:~~ SEQ ID NO: 101> is a predicted amino acid sequence derived from the DNA sequence of ~~SEQ ID NO:~~ SEQ ID NO: 50:

<SEQ ID NO: 101>
ENRCHTVCSKSDLVQSSGSFPAFHVWLPSCSGNTSQVDGG

The following DNA sequence Ion95 <~~SEQ ID NO:~~ SEQ ID NO: 51> was identified in *H. sapiens*:

TCAGCATTTTGTGGCAAGTTTTCTGAGACCTCTGGCCATTAAGCCTTCACTGGGGGTGTGGTCTGTC
TCTGAAGTCTACTCCCATGCAAATGGATTTTGACGGTAATGGTCAACACGCCTGGGCAAAGAATGGG
TCATGCCCATTCTTACTGGAAAGATTTGGAACATTTCCCTGTAAATTGTATATTATTTGGATTTATTT
CTCTAACTGAATGGACGTTTTTCTATATGTTGCCAAATCTTCCAGTAATGCTTCTCATTTCAGTGTAAT

TAAGGAGATTAAAAGTGACAGCATTTTCTTGTTGAATTAATGATGGGTTTTTACATTTTCACTTTTC
AAAAAATATAATCACCCTGTGTTTTGCAGAAACAATAGTATGATAAAATCAAGGAGAAATACAATA
GAGAAGAGGCCAAAAAATCTCAATATTATGATTATAA

The following amino acid sequence <SEQ ID NO: 102> is a predicted amino acid sequence derived from the DNA sequence of SEQ ID NO: 51:

<SEQ ID NO: 102>
AIKPSLGVSSEVYSHCKWILTVMVNTPGQRMGHAHSYWKDLEHFPVNCILFGFISLIEWTFFYMLPNLP

The following DNA sequence Ion31d6 <SEQ ID NO: 103> was identified in *H. sapiens*:

GGAATTCCCGGGATGGTCACCAACATCAGCGTCCCCACCCAAGTCAACATCTCCTTCGCGATGTCTGCCAT
CCTAGATGTGAATGAACAGCTGCACCTCTTGTCATCATTCCTGTGGCTGGAAATGGTTTGGGATAACCCAT
TTATCAGCTGGAACCCAGAGGAATGTGAGGGCATCACGAAGATGAGTATGGCAGCCAAGAACCCTGTGGCTC
CCAGACATTTTCATCATTGAACTCATGGATGTGGATAAGACCCCAAAGGCCTCACAGCATATGTAAGTAA
TGAAGGTCGCATCAGGTATAAGAAACCCATGAAGGTGGACAGTATCTGTAACCTGGACATCTTCTACTTCC
CCTTCGACCAGCAGAACTGCACACTCACCTTCAGCTCATTCTCTACACAGTGGACAGCATGTTGCTGGAC
ATGGAGAAAGAAGTGTGGGAAATAACAGACGCATCCCGGAACATCCTTCAGACCCATGGAGAATGGGAGCT
CCTGGGCCTCAGCAAGGCCACCGCAAAGTTGTCCAGGGGAGGCAACCTGTATGATCAGATCGTGTCTTATG
TGGCCATCAGGCGCAGGCCCAGCCTCTATGTCTATAAACCTTCTCGTGCCAGTGGCTTTCGTGTTGCCATC
GATGCCCTCAGCTTCTACCTGCCAGTGAAGTGGGAATCGTGTCCATTCAAGATAACGCTCCTGTGGG
CTACAACGTCTTCTGCTCATGATGAGTGACTTGCTCCCCACCAAGTGGCACCCCCCTCATCGGTGTCTACT
TCGCCCTGTGCCTGTCCCTGATGGTGGGACGCTGCTGGAGACCATCTTCATCACCCACCTGCTGCACGTG
GCCACCACCCAGCCCCCACCCTGCCTCGGTGGCTCCACTCCCTGCTGCTCCACTGCAACAGCCCGGGGAG
ATGCTGTCCCACTGCGCCCCAGAAGGAAATAAGGGCCCGGGTCTCACCCCCACCCACCTGCCCGGTGAGG
TGTGA

The following amino acid sequence <SEQ ID NO: 105> is a predicted amino acid sequence derived from the DNA sequence of SEQ ID NO: 103:

<SEQ ID NO: 105>
GIPGMVTNISVPTQVNISFAMSAILDVNEQLHLSSFLWLEMVWDNPFISWNPEECEGITKMSMAAKNLWL
PDFIIEIEMDVKTPKGLTAYVSNEGRIRYKPKMKVDSICNLDFYFPDQQNCTLTFFSSFLYTVDSMLLD
MEKEVWEITDASRNILQTHGEWELLGLSKATAKLSRGGNLYDQIVFYVAIRRRPSLYVINLLVPSGFLVAI
DALSFYLPVKSGNRVPFKITLLLGYNVFLMMSDLLPTSGTPLIGVYFALCLSLMVGSLLLETIFITHLLHV
ATTQPPPLPRWLHSLLLHCNSPGRCCPTAPQKENKGPLTPTHLPGEV

The following DNA sequence Ion31c4 <SEQ ID NO: 104> was identified in *H. sapiens*:

TGGTACCGGTCCGGAATTCCCGGGATCACGCCCTGCCTTGGGGCCCCCTCTCATATAGGGAGCACAGGGTTG
CTCTCCTTCATCTCACACATTCGATGTCCACTACAGGAAGGGCGTTACTTTCACCATCAATTGCTCAGGG
TTTGGCCAGCACGGGGCGGATCCCACTGCTCTGAATTCAGTGTTTAATAGAAAGCCCTTCCGTCCGGTCAC
CAACATCAGCGTCCCCACCAAGTCAACATCTCCTTCGCGATGTCTGCCATCCTAGATGTGAATGAACAGC
TGCACCTCTTGTATCATCTTCTGTGGCTGGAAATGGTTTGGGATAACCCATTTATCAGCTGGAACCCAGAG
GAATGTGAGGGCATCACGAAGATGAGTATGGCAGCAAGAACCCTGTGGCTCCAGACATTTTCATCATTTGA
ACTCATGGATGTGGATAAGACCCCAAAGGCCTCACAGCATATGTAAGTAATGAAGGTGCGATCAGGTATA
AGAAACCCATGAAGGTGGACAGTATCTGTAACCTGGACATCTTCTACTTCCCCCTTCGACCAGCAGAACTGC
ACACTCACCTTCAGCTCATTCTCTACACAGTGGACAGCATGTTGCTGGACATGGAGAAAGAAGTGTGGGA
AATAACAGACGCATCCCGGAACATCCTTCAGACCCATGGAGAATGGGAGCTCCTGGGCCTCAGCAAGGCCA

CCGCAAAGTTGTCCAGGGGAGGCAACCTGTATGATCAGATCGTGTTCTATGTGGCCATCAGGCGCAGGCC
AGCCTCTATGTCATAAACCTTCTCGTGCCAGTGGCTTTCTGGTTGCCATCGATGCCCTCAGCTTCTACCT
GCCAGTGAAAAGTGGGAATCGTGTCCCATTAAGATAACGCTCCTGCTGGGCTACAACGTCTTCCTGCTCA
TGATGAGTGACTTGCTCCCCACAGTGGCACCCCCCTCATCGGTGTCTACTTCGCCCTGTGCCTGTCCCTG
ATGGTGGGCGAGCTGTGGAGACCATCTTCATCACCCACCTGCTGCACGTGGCCACCACCCAGCCCCACC
CCTGCCTCGGTGGCTCCACTCCCTGCTGCTCCACTGCAACAGCCCGGGGAGATGCTGTCCCACTGCGCCCC
AGAAGGAAAATAAGGGCCCGGTCTCACCCCCACCCACCTGCCCGGTGTGAAGGAGCCAGAGGTATCAGCA
GGGCAGATGCCGGGCCCTGCGGAGGCAGAGCTGACAGGGGGCTCAGAATGGACAAGGGCCAGCGGGAACA
CGAGGCCCAGAAGCAGCACTCAGTGGAGCTGTGGTTGCAAGTTCAGCCACGCGATGGACGCCATGCTCTTCC
GCCTCTACCTGCTCTTCATGGCCTCCTCTATCATCACCGTCATATGCCTCTGGAACACCTAGGCAGGTGCT
CACCTGCCAACTTCAGTCTGGAGCTTCTCTTGCCTCCAGGGACTGGCCAGGTCTCCCCCTTTCTGAGTA
CCAATATCATATCCCCAAGATGACTGAGTCTCTGCTGTATTCCATGTATCCCAATCCGGTCTGCTGAT
CAATTCCAATCCCAGACATTTCTCCCTGTTCTGCTGCTTTGTTGGCTTCTCTCAGTCTACCATATGGTTC
TAGGTCCCTCTTACGTCATCTGCATAGCAGACTATACCTCTTCTGCCCCTGACTTGCCCAATAAATAATT
CTGCAGAGAAAAAAGGGCGGCCGCTCT

The following amino acid sequence <SEQ ID NO: 106> is a predicted amino acid sequence derived from the DNA sequence of SEQ ID NO: 104:

<SEQ ID NO: 104>

GTGPEFPGRPALGPLSYREHRVALLHLTHSMSTTGRGVFTTINCSGFGQHGADPTALNSVFNRPFRPVT
NISVPTQVNISFAMSAILDVNEQLHLLSSFLWLEMVDNPFISWNPEECEGITKMSMAAKNLWLPDIFIIE
LMDVDKTPKGLTAYVSNRIRYKKPKMVDISICNLDFYFPDQQNCTLTFSFLYTVDSMLLDMEKEVWE
ITDASRNILQTHGEWELGLSKATAKLSRGGNLYDQIVFYVAIRRRPSLYVINLLVPSGFLVAIDALS FYL
PVKSGNRVPFKITLLLGYNVFLMMSDLLPTSGTPLIGVYFALCLSLMVGSLLETIFITHLLHVATTQPPP
LPRWLHSLLLHCNSPGRCCPTAPQKENKGPLTPHLPVKEPEVSAGQMPGPAEAEELTGGSEWTRAQREH
EAQKQHSVELWLQFSHAMDLFRLLYLLFMASIIITVICLWNTAGAHLPSTVWSFSCLOGLARSPFPPEYQ
LSYPQRLSLCCIPICIRSCSIPIPDISPCSCILLASFSTIWFVPLTSSAQTIPLLPADLPNKF CREKKK
KKKKKKKKKKKKKRAAA

The following DNA sequence Ion52 <SEQ ID NO: 107> was identified in *H. sapiens*:

CTGGAAAGGTCCATCGCGTGGCTGAACTGCAACCACAGCTCCACTGAGTGCTGCTTCTGGGCCTCGTGTT
CCGCTGGGCCCCCTGTCCATTCTGAGCCCCCTGTGAGCTCTGCCTCCGCAGGGCCCGCATCTGCCCTGCTG
ATACCTCTGGCTCCTTCACACCTACAGAAAGACAGAGACTCAGCCATGGGCTGCAAATGTACCTGTGGAG
GGAGGGAGACAGGGAAGGAGGCAGGAGCAGAGAAGTGGAGGTGGGGGAAGAGGAATGTGACTTCCCTCACC
GGGCAGGTGGGTGGGGGTGAGACCCGGGCCCTTATTTTCTTCTGGGGCGCAGTGGGACAGCATCTCCCC
GGGCTGTTGAGTGGAGCAGCAGGGAGTGGAGCCACCGAGGCAGGGGTGGGGCTGGGTGGTGGCCACGTG
CAGCAGGTGGGTGATGAAGATGGTCTCCAGCAGGCTGCCACCATCAGGGACAGGCACA

The following amino acid sequence <SEQ ID NO: 109> is a predicted amino acid sequence derived from the DNA sequence of SEQ ID NO: 107

<SEQ ID NO: 109>

CLSLMVGSLLETIFITHLLHVATTQPPPLPRWLHSLLL

The following DNA sequence Ion 111 <SEQ ID NO: 108> was identified in *H. sapiens*:

CCCAGCACTTTGGGAGGCCAAGGTGGGTGGATCACTTCAGTTCAGGAGTTTGAGACCAGCCTGGGCAA
 CATGGTGAAACCTCATCTCTTAAAAAAAAAAAAAAAAAAAAAAAAATTAGCCAGGCCTGGTGGTGCGCCTG
 TAGTCCCAGCTACTTTGGGAGGCTGAGGCTGAGACAGGAGGATCATTTGAGCCCAGGACATGGAAGTTG
 CAGTGAGCTGAGAGCATGCCACTCTACTCCAGCCTGGGTGACAGAGCAAGATCCTGTCTCAAAAAAAA
 AAAAAAAAAAAGGAGAGAGAGAACTGCGGCCCTGCCTCTTGCGTTATCTCTCCTCCAGCATGGA
 TGTGGATAAAACCCCAAAGGCCTCACAGCATATGTAAGTAATGAAGGTCGCATCAGGTATAAAAAAC
 CCATGAAGGGGGACAGTATCTGTAACCTGGACATCTTCTACTTCCCCTTCGACCAGCAAACTGCACA
 CTCACCTTCAGCTCATTCTCTACACAGGTAAGTTGCAGTGAGGTCTCAGGGATGGGGTGAATGAGAG
 CAACCAACAAATTTAAAGAACTATGAGTAAATGGTGACC

The following amino acid sequence <SEQ ID NO: 110> is a predicted amino acid sequence derived from the DNA sequence of SEQ ID NO: 108:

<SEQ ID NO: 110>
 LSSSMDVDKTPKGLTAYVSNEGRIRYKKPMKGDSICNLDFYFPDQQNCTLTFSSFLYT

Please replace the paragraph beginning on page 102, line 3 and ending on page 103, line 3 with the following:

-- A brief description of the searching mechanism follows. The BLAST algorithm, Basic Local Alignment Search Tool, is suitable for determining sequence similarity (Altschul *et al.*, *J. Mol. Biol.*, **1990**, *215*, 403-410, which is incorporated herein by reference in its entirety). Software for performing BLAST analyses is publicly available through the National Center for Biotechnology Information (<http://www.ncbi.nlm.nih.gov/> www.ncbi.nlm.nih.gov).—

Please replace the paragraph on page 24, lines 5-17 with the following paragraph:

-- Another aspect of the present invention is directed to vectors, or recombinant expression vectors, comprising any of the nucleic acid molecules described above. Vectors are used herein either to amplify DNA or RNA encoding ion-x and/or to express DNA which encodes ion-x. Preferred vectors include, but are not limited to, plasmids, phages, cosmids, episomes, viral particles or viruses, and integratable DNA fragments (*i.e.*, fragments integratable into the host genome by homologous recombination). Preferred viral particles include, but are not limited to, adenoviruses, baculoviruses, parvoviruses, herpesviruses, poxviruses, adeno-associated viruses, Semliki Forest viruses,

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cont

vaccinia viruses, and retroviruses. Preferred expression vectors include, but are not limited to, pcDNA3TM vectors (Invitrogen) and pSVLTM vectors (Pharmacia Biotech). Other expression vectors include, but are not limited to, pSPORTTM vectors, pGEMTM vectors (Promega), pPROEXvectorsTM (LTI, Bethesda, MD), BluescriptTM vectors (Stratagene), pQETM vectors (Qiagen), pSE420TM vectors (Invitrogen), and pYES2TM vectors (Invitrogen).
